

What is claimed is:

1. A method, comprising:
 2. based on policy rules, creating an access control list adapted to configure a network device; and
 4. using the access control list to generate access filters.
1. 2. The method of claim 1 further comprising expanding the policy rules into value groups that represent conditions associated with the policy rules.

3. The method of claim 2 further comprising excluding conditions that would otherwise be implied by the rules.
4. The method of claim 3 further comprising resolving inconsistent conditions that result from expanding the policy rules and excluding the policy rule conditions.
5. The method of claim 1 further comprising creating at least one array of included or excluded conditions from the policy rules.
6. The method of claim 5 wherein generating the access filters further comprises:
 3. adding filters adapted to control access of a device to another component in the network.
7. The method of claim 6 further comprising generating deny filters by combining the at least one array of excluded conditions and the at least one array of included conditions.
8. The method of claim 6 further comprising generating permit filters by combining the at least one of the

3 arrays of the included conditions with the remaining
4 arrays of included conditions.

1 9. A computer network, comprising:

2 a first device adapted to disseminate policy rules
3 in the network; and

4 a second device adapted to receive the policy rules
5 disseminated on the network by the first device and
6 adapted to:

7 based on policy rules, create an access
8 control list adapted to configure the at
9 least one device from the filters;

10 and to use the access control list to
11 generate access filters from the
12 translated policies.

10. The system of claim 9 wherein the second device
11. further comprises a permit filter.
11. The system of claim 10 further comprising a
12. plurality of data-storage devices adapted to permit
13. access to the second device.
12. The system of claim 9 wherein the second device
13. further comprises a deny filter.
13. The system of claim 12 further comprising a
14. plurality of data-storage devices adapted to deny
15. access to the second device.
14. An article comprising a computer-readable medium
15. which stores computer executable instructions for
16. managing policy rules on a network, the instructions
17. causing a computer to:

based on policy rules, create an access control list adapted to configure the devices from the simplified rules; and

use the access control list to generate access filters.

15. The article of claim 14 further comprising instructions to expand the policy rules into value groups, wherein value groups represent conditions associated with the policy rules.
16. The article of claim 15 wherein the instructions to translate the policy rules further includes instructions to exclude conditions that would otherwise be implied by the policy rules.
17. The article of claim 16 wherein the instructions to translate the policy rules further includes instructions to resolve inconsistent conditions that result from expanding the policy rules and excluding the policy rule conditions.
- ~~18.~~ A network device, comprising:
 - a configurable management process located on the device having instructions to:
 - receive the policy rules in a network device;
 - translate the policy rules to a set of simplified rules;
 - create an access control list adapted to filter the devices from the simplified rules; and
 - use the access control list to generate access controls.
19. The device of claim 18 further comprising a connection to an external network.

1 20. The device of claim 19 wherein the external network
2 is a local area network.

1 21. The device of claim 19 wherein the external network
2 is the Internet.

1 22. A method of managing access by a device on a network
2 to another component on the network, comprising:

3 providing policy rules that determine the access of
4 the device to the component.

1 23. The method of claim 22 wherein the policy rules
2 comprise:

3 an access control list including the conditions that
4 allow the device to access the component; and
5 filters for implementing the access.

1 24. The method of claim 22 wherein the access control
2 list comprises include and exclude arrays that are combined to
3 generate the filters.